



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,209	04/18/2006	Thierry Charbonneaux	1022702-000265	5179
21839 7590 12/04/2009 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404				
EXAMINER				
EDWARDS, NEWTON O				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
12/04/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/534,209

Applicant(s)

CHARBONNEAUX ET AL.

Examiner

N. EDWARDS

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-15 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) 21-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. Applicant's arguments with respect to claim 13-15 have been considered but are moot in view of the new ground(s) of rejection.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13,14,and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kane (WO 99/67451) taken with Jacobs'585 (US 5,180,585).

Kane, **a Du Pont Patent**, teaches a plurality of polymeric fibers or yarn made from as polyamides which includes any and all nylons such as nylon 6,6 (which is the same thing as polyamide 6,6,) and 0.02% to 5% zinc sulfide (ZnS) particles in the polymeric fibers. See col.4 lines 27-28, abstract, and page 6 lines 6-10, for example. Kane teaches all of the claimed invention except ZnS diameter comprise(coated or encapsulated) in at least mineral coating. Jacobs'585, **a Du Pont Patent**, teaches it is well known in the art of fibers to coat and/or encapsulated ZnS in at least one metal (mineral) such as copper in order to further improve the antimicrobial properties which is also effective against fungi (which is also antifungal). Jacobson further teaches it is well known in the art to incorporate zinc sulfide having a diameter from 0.1 micron to 5 microns in a polymer composition in order to distribute the zinc sulfide throughout a polymer matrix. See col.4 lines 1-42 for example

Thus, it would have been obvious to one having ordinary skill to combine the ZnS coated and/ or encapsulated with at least one metal (mineral) coating, as taught by

Jacobs in the fibers as taught by Kane, in order to further improve the distribution of the particle in the fiber and provide antimicrobial properties of the fiber.

In the alternative, it would have been obvious to one having ordinary skill in the art to substitute the metal coated ZnS having the diameter from 0.1 micron to 5 micron, as taught by Jacobs, for the ZnS, as taught by Kane, since such a modification would involve a mere change in size of the ZnS particle. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237.

No claims are allowed.

Any inquiry concerning this communication should be directed to Primary Examiner Edwards at telephone number (571)272-1521.

/N Edwards/
Primary Examiner
Art Unit 1794